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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/416,715	10/13/1999	MANFRED LEMBKE	10191/1201	6509

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EXAMINER	
ZACHARIA, RAMSEY E	22

ART UNIT	PAPER NUMBER
1773	

DATE MAILED: 10/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AF-22

Office Action Summary	Application No. 09/416,715	Applicant(s) LEMBKE ET AL.	
	Examiner Ramsey Zacharia	Art Unit 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 August 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-6,8-10 and 12-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-6,8-10 and 12-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

2. Claims 1, 4-6, 8-10, 12, 13, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasui et al. (U.S. Patent 5,465,618) in view of Gruner et al. (U.S. Patent 4,345,465).

Yasui et al. teach a thermal flow sensor provided at a predetermined position within a housing defining the main passage of a fluid (column 1, lines 9-31). The sensor comprises a zirconia base with resistor elements made of platinum or nickel, i.e. metals (column 4, line 35-column 5, line 5). The sensor further comprises a protective layer over the resistor elements and zirconia base in areas not covered by resistor elements (column 4, lines 55-57).

Yasui et al. is silent regarding the composition of the protective layer.

Gruner et al. is directed to flow sensor (column 1, lines 5-13). A protective layer of a polymer comprising hexafluoropropylene is used to prevent dirt contamination and subsequent changes in the response speed of the device (column 3, lines 18-25).

One of ordinary skill in the art would be motivated to use the polymer comprising hexafluoropropylene as the protective layer of Yasui et al. to prevent the accumulation of dirt on the sensor and resulting change in response speed.

Regarding the limitations of claims 4, 5, and 10, the stability temperature, surface energy, and decomposition temperature are taken to be physical properties of the material. Since Gruner et al. uses a fluorinated polymer for the protective coating as is done in the instant application, the protective coating of Gruner et al. is taken to inherently possess the same material properties as that of the instant invention.

Moreover, the protective coating of Gruner et al. is taken to pass a cross-cut test since it is the same material as used in the instant invention and is designed to act as a protective layer.

Therefore, the inventions of claims 1, 4-6, 8-10, 12, 13, and 17 would have been obvious to one of ordinary skill in the art at the time the inventions were made.

3. Claims 1, 4-6, 8-10, and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto et al. (U.S. Patent 4,606,952) in view of Yasui et al. (U.S. Patent 5,465,618) and Gruner at al. (U.S. Patent 4,345,465).

Sugimoto et al. teach an automotive fuel hose and fuel pump diaphragm comprising a laminate of a fluororubber inner layer bonded to an outer layer (column 1, lines 9-13).

Sugimoto et al. do not teach the presence of a sensor element as recited in claim 1.

Yasui et al. teach a thermal flow sensor provided at a predetermined position within a housing defining the main passage of a fluid (column 1, lines 9-31). The sensor comprises a zirconia base with resistor elements made of platinum or nickel, i.e. metals (column 4, line 35-column 5, line 5). The sensor further comprises a protective layer over the resistor elements and zirconia base in areas not covered by resistor elements (column 4, lines 55-57).

Gruner et al. is directed to flow sensor (column 1, lines 5-13). A protective layer of a polymer comprising hexafluoropropylene is used to prevent dirt contamination and subsequent changes in the response speed of the device (column 3, lines 18-25).

One of ordinary skill in the art would be motivated to use the sensor of Yasui et al. (that is designed to be used in the main passage of flowing fluids) in the hose or pump of Sugimoto et al. to allow for detection of, and subsequent control over, the rate of flow through the hose or pump.

One of ordinary skill in the art would be motivated to use the polymer comprising hexafluoropropylene as the protective layer of Yasui et al. to prevent the accumulation of dirt on the sensor and resulting change in response speed.

Regarding the limitations of claims 4, 5, and 10, the stability temperature, surface energy, and decomposition temperature are taken to be physical properties of the material. Since Gruner et al. uses a fluorinated polymer for the protective coating as is done in the instant application, the protective coating of Gruner et al. is taken to inherently possess the same material properties as that of the instant invention.

Moreover, the protective coating of Gruner et al. is taken to pass a cross-cut test since it is the same material as used in the instant invention and is designed to act as a protective layer.

Regarding claim 16, the hose or pump containing the probe reads on a housing for the probe.

Therefore, the inventions of claims 1, 4-6, 8-10, and 12-17 would have been obvious to one of ordinary skill in the art at the time the inventions were made.

Response to Arguments

4. Applicant's arguments filed 01 August 2003 have been fully considered but they are not persuasive.

Regarding the prior art rejections, the applicants argue that the polymer of Gruner et al., i.e. a polymer of hexafluoropropylene, is not a partially fluorinated polymer as required by the instant claims.

This is not persuasive because the claims as written do not require the surface coating to contain a partially fluorinated polymer. Rather, claim 1 recites a Markush group of materials that may be used for the surface coating. One element in this Markush group is "polymeric fluorocarbon resins." A polymer of hexafluoropropylene is a polymeric fluorocarbon resin since it is a polymeric resin containing fluorocarbon units. Furthermore, regarding claims 4, 5, and 10, the material properties of these claims are taken to be intrinsically possessed by the coating of Gruner et al. since Gruner et al. uses a material that appears to be the same as that disclosed by the applicants.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramsey Zacharia whose telephone number is (703) 305-0503. The examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Ramsey Zacharia
Examiner
Center 1700